

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1, 4, and 6 are pending. Claims 5 and 9 were previously canceled without prejudice. Claims 7 and 8 were previously canceled without prejudice.

In the Office Action, Claims 1 and 4 were rejected as being unpatentable over Nishida et al (U.S. Patent No. 6,842,207), Fujimori et al (U.S. Pat. Appl. Publ. No. 2002/0075441), and Yi et al (U.S. Pat. Appl. Publ. No. 2003/0104291). Claim 6 was rejected as being unpatentable over Nishida et al, Fujimori et al, and Yi et al in view of Ochiai et al (U.S. Pat. No. 6,768,531).

Regarding the rejection on the merits, Applicant submits that none of the cited references discloses a columnar spacer disposed only on the pixel of the minimum gap, as defined in Claim 1.

Nishida et al disclose an example of disposing a bead-like spacer on a blue pixel of the minimum gap as shown in FIG. 12d. However, the bead-like spacer does not relate to the columnar spacer defined in Claim 1. Indeed, the Office Action on page 3 acknowledged:

Nishida et al. fail to specifically disclose that the spacer disposed on the third pixel (blue pixel) is a columnar spacer and further that the columnar spacer is specifically formed of a negative-type photoresist resin having light shield properties.

Thereafter, the Office Action asserts that Fujimori et al disclose in element 10 of Figure 1 a columnar spacer disposed only on the blue pixel. However, in Fujimori et al, columnar spacer 10 is **not** disposed on the blue pixel 5B. Rather, columnar spacer 10 in Fujimori et al is disposed on element 6, the black matrix material. Furthermore, the black matrix material 6 in Fujimori et al is disposed beside the blue pixel 5B. Thus, the columnar spacer 10 in Fujimori et al is **not** disposed even indirectly on the blue pixel 5B. For this

reason, a combination of Fujimori et al and Nishida et al would not produce the claimed invention.

Besides this difference, in Fujimori et al, the cell gap for each color pixel is uniform. Fujimori et al do not disclose of suggest disposing a columnar spacer on the pixel with the minimum gap. Therefore, without impermissible hindsight from Applicant's disclosure, one would not know how to modify Nishida et al in terms of where to place the columnar spacer of Fujimori et al, especially given the discussion above that the columnar spacer in Fujimori et al is *not disposed* on any of the color pixels. For this reason, the proposed combination of Fujimori et al and Nishida et al in the Office Action is improper.

Moreover, the deficiencies in Fujimori et al and Nishida et al are not overcome by Yi et al. Yi et al disclose forming a black matrix and spacer between pixels by the photosensitive black material. Yi et al also disclose disposing spacers of the same height on all the color pixels. Yi et al do not suggest disposing a columnar spacer only on the pixel of the minimum gap, as claimed. Thus, a combination of Yi et al, Nishida et al, and Fujimori et al, even if proper, would also *not* produce the claimed invention.

Finally, M.P.E.P. § 2141.02, quoting case law, states that a prior art reference must be considered for its entirety, i.e., as a whole, including portions that lead away from the claimed invention. The Court in In re Gurley (CA FC) 31 USPQ2d 1130 stated that:

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant.

In the present case, the teachings of the placement of columnar spacers in Fujimori et al on the black matrix material and not on any of the color pixels would lead one of ordinary skill

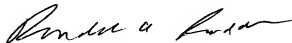
in the art in a direction divergent from the path that was taken by the Applicant. Thus, combining Fujimori et al with the other applied references is improper. See M.P.E.P. § 2145 (X)(D)(2).

Hence, for all these reasons, Applicant respectfully submits that Claim 1 and the claims dependent therefrom patentably define over the art of record.

Consequently, in view of the foregoing discussion and present amendment, it is respectfully submitted that this application is in condition for allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 06/04)

Ronald A. Rudder, Ph. D.
Registration No. 45,618